

Docket No. AUS920010487US1

CLAIMS:

What is claimed is:

1. A method for enabling a transmission control protocol (TCP) off-load, comprising the steps of:

5 during establishment of a TCP connection, exchanging at least one queue identification number between a first port and a second port of the TCP connection; and

inserting at least one queue identification number in outbound data packets, wherein the first port of the
10 TCP connection sends a data packet to the second port of the TCP connection and the second port of the TCP connection sends a data packet to the first port of the TCP connection.

2. The method as recited in claim 1, wherein the first
15 port of the TCP connection is a sending port and the second port of the TCP connection is a receiving port.

3. The method as recited in claim 1, further comprising:

employing a queue identification option to identify
20 a TCP socket.

4. The method as recited in claim 1, wherein the TCP socket includes a software queue, a hardware queue, and a mixed software queue and hardware queue.

5. The method as recited in claim 3, wherein employing
25 a queue identification option to identify the TCP socket is employed in at least one of a software and hardware implementation.

6. The method as recited in claim 3, wherein the queue identification option is employed to lookup the TCP socket.

7. The method as recited in claim 6, wherein the queue
5 identification option is employed to lookup the TCP socket for an incoming packet in at least one of a software or a hardware implementation.

8. A system for enabling a transmission control protocol (TCP) off-load, comprising:

10 an exchange component, during establishment of a TCP connection, which exchanges at least one queue identification number between a first port and a second port of the TCP connection; and

an insertion component which inserts at least one
15 queue identification number in outbound data packets, wherein the first port of the TCP connection sends a data packet to the second port of the TCP connection and the second port of the TCP connection sends a data packet to the first port of the TCP connection.

20 9. The system as recited in claim 8, wherein the first port of the TCP connection is a sending port and the second port of the TCP connection is a receiving port.

10. The system as recited in claim 8, further comprising:

25 an identification component which employs a queue identification option to identify a TCP socket.

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